Dec 30 1977

Mr. Edward L. Schmitt
Design Engineer
Kerotest Manufacturing Corp.
2525 Liberty Avenue
Pittsburgh, PA 15222

Dear Mr. Schmitt:

This refers to your letter dated November 15, 1977, in which you ask, "What is the allowable mismatch of the internal diameters when welding pipe to the end of the valve?"

The Federal gas pipeline safety standards contained in 49 CFR Part 192 (copy enclosed) do not set mismatch limits for the transition joint area between ends of unequal internal diameters of pipe and valve for welding.

Under Section 192.223, General, "(a) Welding must be performed in accordance with established written welding procedures that have been qualified under §192.225 to produce sound, ductile welds." and "(b) Welding must be performed by welders who are qualified under §192.227 and §192.229 for the welding procedure to be used." Therefore, if the valve is to be welded to the pipe, it is the operator's responsibility to develop a welding procedure, which includes preparation of treatment of the joint design area of the pipe and valve ends for joining that will ensure a sound ductile weld.

The recommended practices developed by organizations or committees, such as American National Standards Institute, ANSI B31.8-1975 Code, referenced in your letter which utilize the cumulative knowledge and experience in the fields of gas distribution systems, transmission systems, manufacturing of materials, pipe and components, and related activities could be used to develop the welding procedure to meet the requirements of Section 192.223.

We trust that we have satisfactorily responded to your inquiry.

Sincerely,

\signed\

Cesar DeLeon
Acting Director
Office of Pipeline
Safety Operation

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Enclosure

November 15, 1977

Director
Office of Pipeline Safety Operations
Dept. of Transportation
2100 Second St. S.W.
Washington, D.C. 20590

Dear Sir:

I would like to have an official interpretation of Part 192 Title 49 of the Code of Federal Regulations concerning the following:

What is the allowable mismatch of the internal diameters when welding pipe to the end of the valve? We are concerned with butt welds only.

An example of what I am seeking is as follows: A weld end valve for schedule 40 pipe is bored to 4.026 diameter. The internal diameter of 4" pipe with .219 wall is 4.062 is to be welded to the valve. This would give us a mismatch of .018 on the walls.

Another way of asking the question would be "What is the largest inside diameter of pipe (4" valve and 4" pipe, 6" valve and 6" pipe) that can be welded to a valve that is bored for schedule 40 pipe without reboring the valve or changing weld preparation and resorting to internal welding?"

The maximum mismatch allowed without any internal welding is 3/32 according to page 109 paragraph B of ANSI B31.8 1975. However, this specification is not referenced in the Code of Federal Regulations.

Since I cannot pin this down in the Code, I would desire to know the official restrictions or limitations.

Thanking you in advance.

Very truly yours,

KEROTEST MANUFACTURING CORP.

\signed\

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Edward L. Schmitt
Design Engineer